

REMARKS

Claims 1, 3-11, and 13-15 remain in the application with claims 1, 5, 9-11, and 13 having been amended hereby.

Reconsideration is respectfully requested of the rejection of claims 1, 3-5, and 9-11 under 35 USC 103, as being unpatentable over Andrea et al. in view of Ueno.

As previously explained the present invention is intended to provide a combined headphone and recording system that also employs a separate remote control unit that is located separate and apart from the actual headphone unit. The headphone unit is provided with microphones so as to effect binaural recording and, further, an equalizer circuit is provided that is intended to provide noise cancellation of the signals being played back over the headphones. As explained in the present specification and as shown in Fig. 2, the overall gain of the equalizer circuit is selected at a center frequency relative to a range of frequencies. This range of frequencies is chosen to be between 50 Hz and 1.5 kHz. In this band a noise can be effectively cancelled and, moreover, this frequency range is relatively small so it is easily controlled.

Thus, according to the present invention, by use of this equalizer circuit noise cancellation of the ambient noise in the range of 50 Hz to 1.5 kHz in the area of the user can be effectively cancelled. Furthermore, because the microphones can be separated from the headphones, that is, because they are not integrally part of the headphone device, the

microphones can be used to make binaural recordings while the headphones are used as a sound monitoring device.

The claims have been amended hereby to emphasize the above-noted features of the present invention.

As previously noted, Andrea et al. relates to a headphone unit for use in an intercom system in which an adaptive noise cancellation is provided. Nevertheless, Andrea et al. is silent concerning the use of a separate recording unit. It simply employs a microphone to effect the noise cancellation.

Ueno relates to a portable tape recorder or playback unit that has a single jack that can receive a microphone or an earphone or a remote control unit. Although Ueno does provide for recording, there is no discussion therein of any noise cancellation to be effected.

Therefore, there is no suggestion in either reference of any benefits to be had by making the combination as suggested by the examiner. Thus, simply knowing about a recording unit would not lead one with ordinary skill in the art to modify the Andrea et al. system somehow to include a recording element, as in the presently claimed invention.

Moreover, neither reference discloses the cancellation of the ambient sound within the range of 50 Hz to 1.5 kHz, as taught by the present invention and as recited in the amended claims.

Reconsideration is respectfully requested of the rejection of claims 13-15 under 35 USC 103 as being unpatentable over Nishimoto in view of Andrea et al.

Nishimoto relates to a sound collector having pairs of headphone units and microphones for collecting sound for playback over the headphones. Nishimoto is silent concerning the cancellation of noise over a specified range as in the presently claimed invention.

As previously noted, Andrea et al. is also completely silent concerning this range of ambient noise cancellation according to the presently claimed invention.

Therefore, it is respectfully submitted that even combining Andrea et al. with Nishimoto that the presently claimed invention would not have been rendered obvious.

Reconsideration is respectfully requested of the rejection of claim 6-8 under 35 USC 103, as being unpatentable over Andrea et al. in view of Ueno and further in view of Trompler.

Claims 6-8 depend from claim 5, which for the reasons set forth hereinabove is thought to be patentably distinct over the cited references and, for at least those very same reasons, claims 6-8 are also submitted to be patentably distinct thereover.

Moreover, Trompler is completely silent concerning the range of frequencies of the ambient sound to be cancelled, as taught by the present invention and as recited in claims 6-8.

Therefore, by reason of the amendments made to the claims hereby, as well as the above remarks, it is respectfully submitted that an acoustic apparatus in which ambient sound within a predetermined frequency range is cancelled, as taught

by the present invention and as recited in the amended claims, is neither shown nor suggested in the cited references, alone or in combination.

Entry of this amendment is earnestly solicited and it is respectfully submitted that this amendment raises no new issues requiring further consideration and/or search because this inherent noise cancellation range has always been disclosed in the specification.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

COOPER & DUNHAM LLP

A handwritten signature in dark ink, appearing to read "Jay H. Maioli". The signature is fluid and cursive, with the first name "Jay" and last name "Maioli" clearly distinguishable.

Jay H. Maioli
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